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(54) Abstract Title

**Child's high chair with reclining back**

(57) A seat (3) for a high-chair (1) comprises a body (13) with a sitting portion (15) and a back-rest (14), said body (13) being provided with lateral sidepieces (16) slidably associated with shoulders of a support structure (2) for the seat (3), there being positioned on the rear of the back-rest (14) a single control (25A) enabling the seat (3) or at least its back-rest (14) to be inclined. The shoulders of the support structure (2) each comprise a box structure (17) having two portions (17A, 17B) between which a corresponding lateral portion or sidepiece (16) of the seat is positioned, said lateral portion (16) containing an end of a rod (21) connected to said single control (25A), and presenting at least one pin (29) projecting from it and arranged to cooperate with a plurality of seats (35) provided in one of said portions (17A, 17B) of the box structure (17) in order to define different inclined positions of the seat (3) or of its back-rest (14).

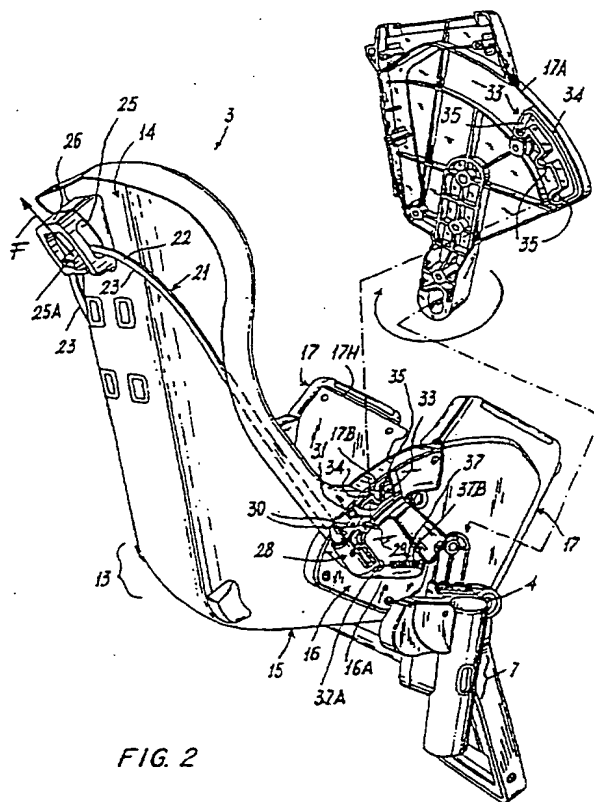


FIG. 2

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## SEAT FOR HIGH-CHAIR WITH SIMPLIFIED DEVICE FOR ITS INCLINATION

The present invention relates to a seat for a high-chair in accordance with the introduction to the main claim.

Reclinable seats forming part of a child support structure in a heavy child-welfare product have been known for some time. Examples include seats for push-chairs, automobile seats and seats for high-chairs.

With particular reference to these latter, high-chairs are known provided with a single control positioned on the rear of their back-rest and by which the inclination either of the entire seat or of its back-rest can be varied. One such seat comprises, for example, an inverted U-shaped rigid member positioned on the rear of its back-rest; this member comprises two arms or rods positioned laterally to the back-rest and connected together by a rod positioned transversely to this latter. A gripping handle is associated with the transverse rod, which passes through a member fixed to the rear of said back-rest. The lateral rods terminate within lateral portions or sidepieces of the seat which are inserted, movable about an end hinge pin, within a box structure of a fixed support member of the seat. With the end of each rod there is associated a plate provided with a slot, in one edge of which notches are present to cooperate with a corresponding pin fixed to the (fixed) box structure. The plate is hinged to a pin fixed to the corresponding sidepiece and is subjected to a return spring rigid at one end with the seat sidepiece. By acting on the said handle (or single control) without interruption, the plate associated with each rod is raised, and the fixed pin is

disengaged from a notch and moved into the slot. This enables the seat to be rotated about the end hinge pin to change the inclination. If the handle is now released, the fixed pin moves into a notch (different from that in which it was previously positioned), to lock the seat in the position attained.

Although this solution is operationally excellent, it is of complicated implementation.

An object of the present invention is to provide a reclinable high-chair seat which is of simple implementation and reliable use.

This and further objects which will be apparent to the expert of the art are attained by a seat in accordance with the accompanying claims.

The present invention will be more apparent from the accompanying drawing, which is provided by way of non-limiting example and in which:

Figure 1 is a perspective view of a high-chair with a seat according to the invention; and

Figure 2 is an exploded perspective view, with certain parts omitted for greater clarity, of the seat of the high-chair of Figure 1.

With reference to said figures, a high-chair 1 comprises a support element 2 for a seat 3. This support element is fixed relative to the seat 3 which in contrast is reclinable about coaxial lateral hinge pins 4 and 5 associated with known lateral elements 7 slidable on bars 8 of the support element 2. This latter is of known type and comprises a front structure 10 and a rear structure 11, the first provided with bars 8 and the second with bars 12. The bars 8 and 12 can be moved towards each other (to close the element 2) or away from each other (as in Figure 1) to enable the high-chair to be used.

The seat 3 comprises a body 13 with a back-rest 14 and a sitting portion 15 which, in the example shown in the figures, are fixed together. The sitting portion 15 is hinged to the pins 4 and 5. Laterally, the seat 3 comprises sidepieces 16 inserted in box structures 17 associated with the elements 7. The structures 17 define fixed arm-rests for the chair. These latter support a removable slidable table 20 associated with guides 17H of the structures 17.

An inverted U-shaped member 21 is present on the rear of the back-rest 14; this member has a portion or rod 22 positioned transversely to the back-rest, and rods 23 associated with said rod 22 and positioned along the sides of the back-rest. The rod 22 passes through slots 25 in a member 26 fixed to the back-rest 14, and carries a handle 25A. The rods 23 penetrate into the sidepieces 16 also defined by an internally hollow box structure with opposing walls 16A; they present free ends fixed to members 28 carrying pins 29 projecting from opposing faces 30 of said members. These pins emerge from the sidepieces 16 via elongate slots 31 provided in the walls 16A, and each cooperates with a guide and fixing element 33 projecting from each opposing portion 17A, 17B of the relative box support element 17 towards the corresponding sidepiece 16. The guide element 33 comprises a hole or slot 34, in one edge of which notches 35 are present.

Each member 28 cooperates with a tension spring 37 having a first end 37A associated with said member and the second end 37B fixed to the sidepiece 16.

During its use, to change the seat inclination, the handle 25A is pulled towards the member 26 (arrow F of Figure 2); in this manner each pin 29 guidedly moves within the slot 31 in the wall 16A of the corresponding sidepiece 16 and is shifted out of a corresponding notch in which it is inserted and into the slot 34. By maintaining the handle 25A pulled towards the member 26 and acting either on it or directly on the seat 3, the seat inclination can be changed. Having attained the desired position,

the handle 25A is released; by the effect of the spring 37, the said pin 29 enters a different notch 35 of the element 33, to lock the seat in the new attained position.

The aforedescribed solution is simple to implement and to use, and has a very low cost which favourably influences the cost of the finished seat.

An embodiment has been described comprising two opposing pins 29 cooperating with corresponding elements 33 and in which the entire seat 3 is reclinable. The invention also covers the case of a seat in which only the back-rest 14 is reclinable and/or the case in which only one pin 29 is associated (possibly directly) with the rod 23 and cooperates with a corresponding element 33 provided in only one portion 17A or 17B of the structure 17.

## CLAIMS

1. A seat (3) for a high-chair (1), comprising a body (13) with a sitting portion (15) and a back-rest (14), said body (13) being provided with lateral portions or sidepieces (16) slidably associated with shoulders of a support structure (2) for the seat (3), there being positioned on the rear of the back-rest (14) a single control (25A) enabling the seat (3) or at least its back-rest (14) to be inclined, the shoulders of the support structure (2) each comprising a box structure (17) having two portions (17A, 17B) between which a corresponding lateral portion or sidepiece (16) of the seat is positioned, said lateral portion (16) being hinged (at 4, 5) to a pin of said structure (2), an end of a rod (23) connected to said single control (25A) being positioned at said lateral portion (16), wherein said end of the rod (23) carries at least one pin (29) projecting from it and is arranged to cooperate with a plurality of seats (35) provided in one of said portions (17A, 17B) of said box structure (17) in order to define different inclined positions of the seat (3) or of its back-rest (14).
2. A seat as claimed in claim 1, wherein the end portion of the rod (23) cooperates with a spring (37) arranged to oppose the movement of said rod when the pin (29) disengages from one of said plurality of seats (35) in the portion (17A, 17B) of the box structure (17).
3. A seat as claimed in claim 1, wherein said lateral sidepiece (16) comprises a guide (31) for the movement of the pin (29) when it disengages from the seat (35) in the portion (17A, 17B) of the box structure.
4. A seat as claimed in claim 1, wherein the pin (29) is carried by a member (28) secured to the rod (23).
5. A seat as claimed in claim 1, comprising two rods (23) associated with the single control (25A), this

latter being carried by a rod (22) joining together said two rods and being positioned transversely to, and on the rear of, the back-rest (14), the two rods (23) being positioned along the sides of the back-rest and defining, with the transverse rod (22), an inverted U-shaped member (21), the transverse rod (22) cooperating with a support (26) fixed to the back-rest (14) and presenting at least one elongate hole (25) through which said transverse rod (22) passes, the two lateral rods (23) terminating at the lateral sidepieces (16) of the seat and each supporting at least one pin (29).

6. A seat as claimed in claim 5, wherein each lateral sidepiece (16) is of box structure and comprises two portions (16A) between which the end of each lateral rod (23) is positioned, each portion (16A) comprising a slot for guiding the pin (29) and from which this latter projects.

7. A seat as claimed in claim 6, wherein the end portion of each lateral rod (23) is associated with a member (28) presenting opposing faces (30) from which corresponding pins (29) project in opposite directions, said pins cooperating with guide and fixing elements (33) associated with portions (17A, 17B) of the box structure (17) of the support structure (2), each guide element (33) presenting notches (35) connected together by an elongate cavity (34) along one side of which said notches are present.

8. A seat substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

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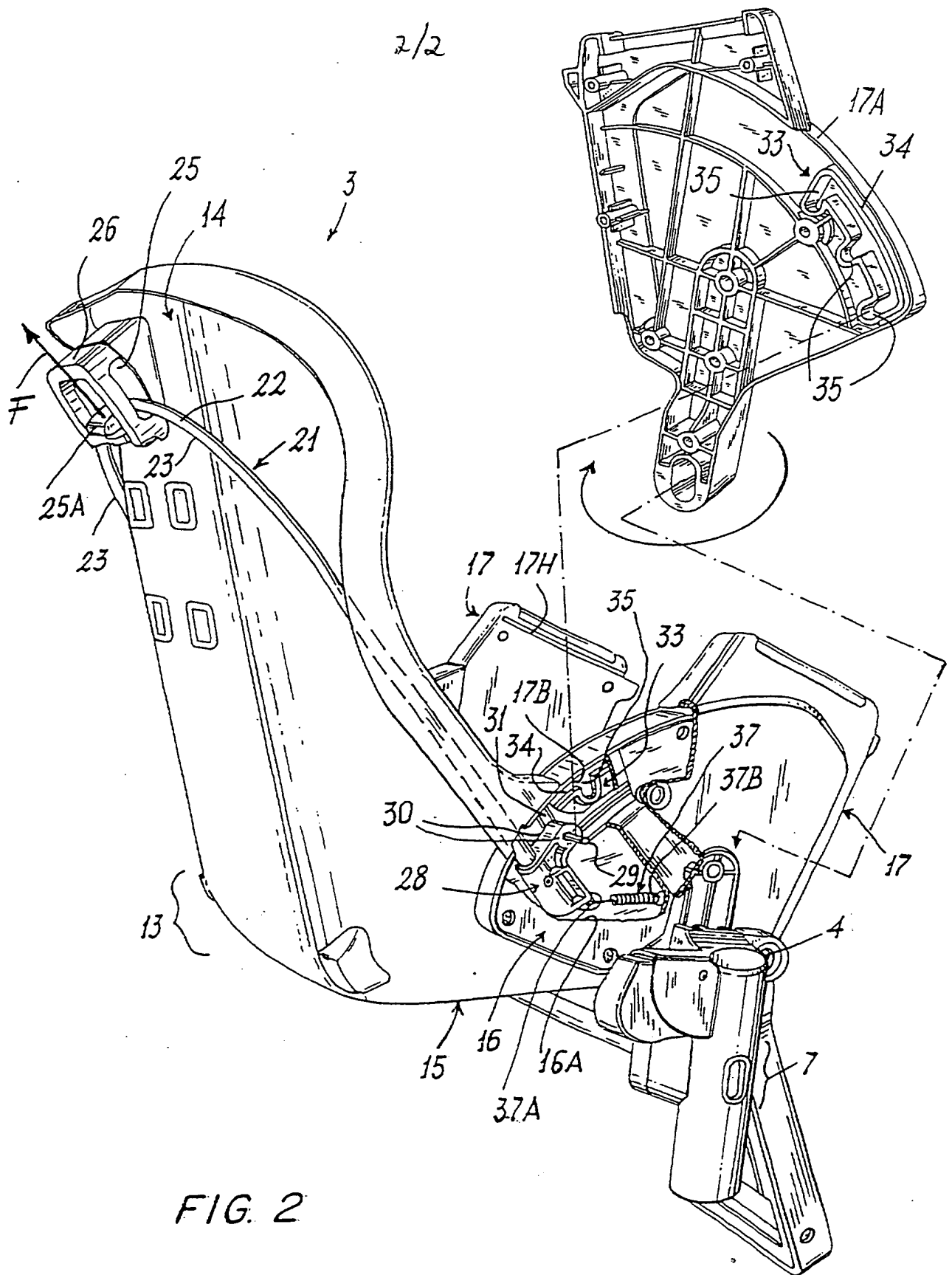


FIG. 2



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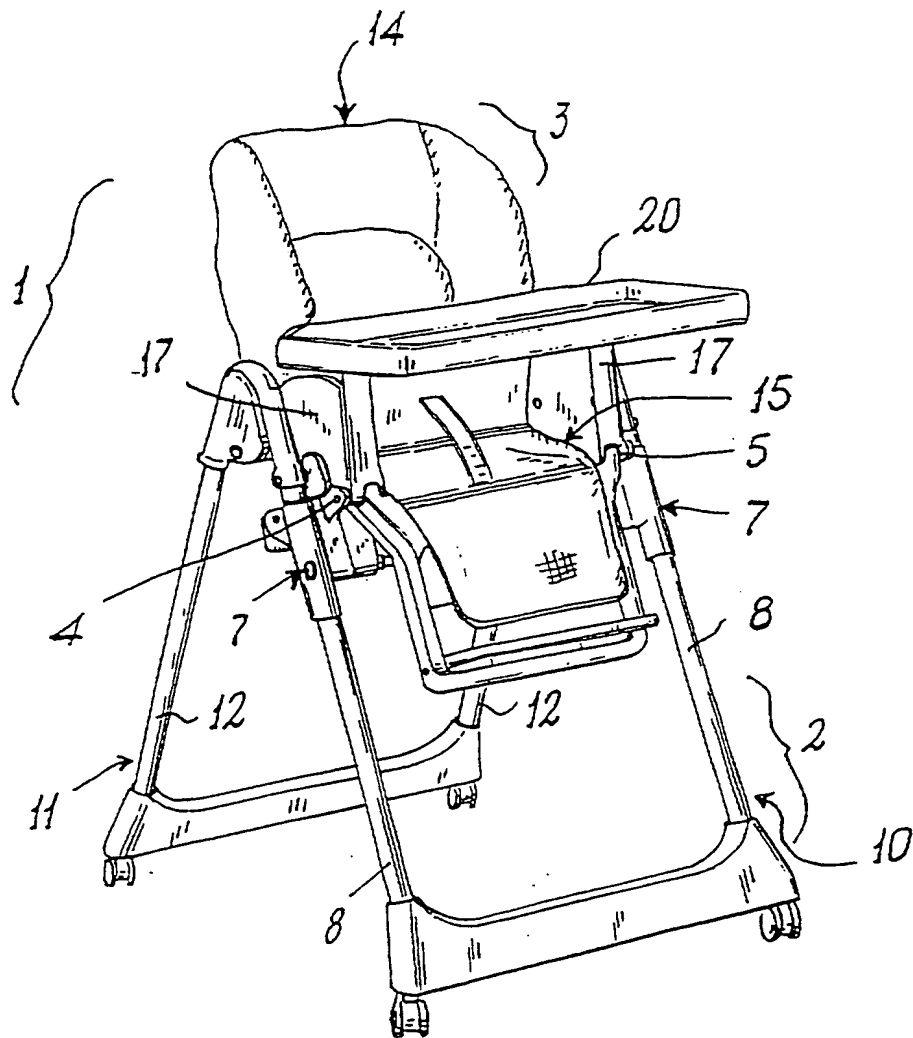


FIG. 1